COCONINO COUNTY HEALTH DEPARTMENT
Making A Difference Every Day

Epi News

April 2006

Pertussis Outbreak

Pertussis (whooping cough) is a potentially serious respiratory illness caused by the bacterium *Bordetella pertussis*. Pertussis is characterized by persistent coughing fits that last from 2-8 weeks, a high-pitched "whooping" sound when inhaling after coughing, and occasional vomiting after coughing. The illness can be particularly severe in young children. The "whooping" and vomiting are often absent in adolescents and adults. Unfortunately, many older children and adults with pertussis are not diagnosed and treated and pass this disease on to others, including young children. Physicians who suspect pertussis in a patient should report to Coconino County Health Department (CCHD) within 24 hours of diagnosis by calling (928) 522-7920 (after hours: 928-913-6744).

Coconino County has been experiencing a pertussis outbreak since the spring of 2005. 59 cases were diagnosed in 2005. Coconino County had the highest incidence rate in Arizona in 2005, and this high rate is continuing. 29 cases have been diagnosed since January 1, 2006. Before 2005, Coconino County had 2-5 cases per year.

In an effort to control the outbreak and to protect those most vulnerable to pertussis, CCHD recommends an accelerated DTaP (diphtheria, tetanus, and acellular pertussis) vaccination schedule for infants at 6 weeks, 10 weeks and 14 weeks. The last two DTaP doses are given at 12-18 months, and 4-6 years. The TdaP (tetanus, diphtheria, acellular pertussis) vaccine is recommended for adolescents and adults, especially those who live with or take care of infants and young children.

CCHD offers pertussis vaccines on Mondays, Wednesdays, and Fridays from 8:00-11:30 am and 1:00-4:00 pm. Vaccination is free for children 18 and under and for parents, grandparents, and caregivers of an infant under one year of age. For more information, call (928) 522-7920.

Influenza Peaks Early

This season, influenza activity peaked in December. Influenza-like illness (ILI) in sentinel clinics was high for most of December 2005, and it decreased rapidly in January 2006. (ILI is defined as a fever ≥100°F AND cough and/or sore throat.) So far this season, healthcare providers and the Arizona State Health Laboratory have confirmed 212 cases of influenza in Coconino County. Cases were confirmed by rapid tests and/or virus culture. The observed increase in ILI in December corresponded closely in time to a rapid increase in the number of confirmed cases of influenza reported to the Coconino County Health Department (see graphs on next page). The number of confirmed cases of influenza also declined rapidly through January. Influenza activity usually peaks in February or March. The influenza season typically continues through May. Sporadic influenza cases can occur throughout the year.

Hantavirus Illness Increases

In the United States, hantaviruses cause a deadly infection called hantavirus pulmonary syndrome (HPS). The initial symptoms are fever, severe muscle aches and fatigue. After a few days, affected people develop difficulty breathing. Sometimes people will have headaches, dizziness, chills, nausea, vomiting, diarrhea, and stomach pain. The illness often leads to respiratory arrest and death. Physicians that suspect hantavirus illness in a patient are required to report the illness to Coconino County Health Department (928-522-7920).

Arizona has recently seen an increase in hantavirus illness. Although there have been no cases in Coconino County, three cases have occurred in Arizona so far this year: two in Maricopa County and one in Navajo County. Arizona usually has between zero and five cases in an entire year. Heavy precipitation followed by prolonged drought may have been responsible for an increase in risk of HPS in Arizona.

Deer mice are naturally infected with hantavirus. The virus is transmitted to people by breathing in dried mouse urine or droppings or dust contaminated with urine or droppings. It is not transmitted from person-to-person. Preventing hantavirus illness requires eliminating and preventing rodent infestations in homes and other buildings. For more information, visit this website: http://www.coconino.az.gov/health.aspx?id=2829

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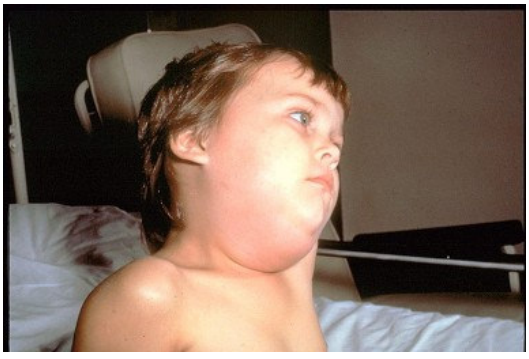
Mumps in the Midwest

The state of Iowa has been experiencing a large outbreak of mumps that began in December 2005. As of April 17, 2006, there have been over 1200 suspect, probable and confirmed cases of mumps reported in Iowa and surrounding states. Additional outbreak-associated cases are being found in several other states throughout the country. Arizona does not currently have an outbreak of mumps, but local health departments throughout the state are following up on any reported cases of mumps and/or parotid gland swelling. It is expected that one or more cases of mumps related to the Midwest outbreak will be identified in Arizona.

Mumps is usually a mild disease with the main symptom being parotid gland swelling, but an estimated 20-30 percent of mumps infections are asymptomatic. Symptomatic mumps infections can have other clinical manifestations including aseptic meningitis, encephalitis, orchitis, hearing impairment, or miscarriage. Mumps is transmitted via respiratory droplets. The incubation period for mumps is usually 16-18 days, though it ranges from 12-25 days. The infectious period is considered to be 2 days before parotitis onset to 9 days after parotitis onset.



Parotid inflammation can be due to other bacterial infections and viruses besides mumps. However, in light of the current mumps outbreak in the Midwest, swelling of the parotid or other salivary gland lasting >2 days should raise the concern of mumps. Healthcare providers who see a person with swelling of the parotid or other salivary glands without other apparent cause should order laboratory specimens (serology and viral culture) to test for mumps. Laboratory testing is discussed below. Confirmation needs to be made by the Arizona State Health Laboratory and coordinated by the Coconino County Health Department. **Healthcare Providers are required to report suspected cases to Coconino County Health Department within one working day. [(928) 522-7920]**

All confirmed and probable cases should be isolated at home, unless it is medically necessary to hospitalize them, until 9 days after the onset of swelling. In health care settings, the use of respiratory droplet precautions is recommended. Any child with swelling of parotid or other salivary glands, without a known cause, should be excluded from school or daycare until 9 days after the onset of parotid swelling.

Laboratory Diagnosis of Mumps

- Serologic diagnosis of acute infection is made by a positive mumps IgM.
- Mumps IgG can assist in the diagnosis if there is a four-fold rise between acute and convalescent specimens collected ≥ 3 weeks apart.
- Mumps virus can be cultured from buccal swabs, throat swabs, nasopharyngeal swabs, urine, and cerebrospinal fluid (CSF).
- Buccal, throat, and nasopharyngeal swabs should be placed in viral transport media.
- Urine and CSF samples do not require transport media, but should be processed quickly.

Immunization Recommendations

- All health care workers should make sure that they have received two doses of MMR, or have serologic evidence of IgG antibody to mumps.
- All teachers, professors, and daycare providers, born after 1957, are encouraged to have had two doses of MMR.
- Anyone who wishes to decrease their risk of getting mumps should have received at least 1 dose of MMR and optimally 2 doses.

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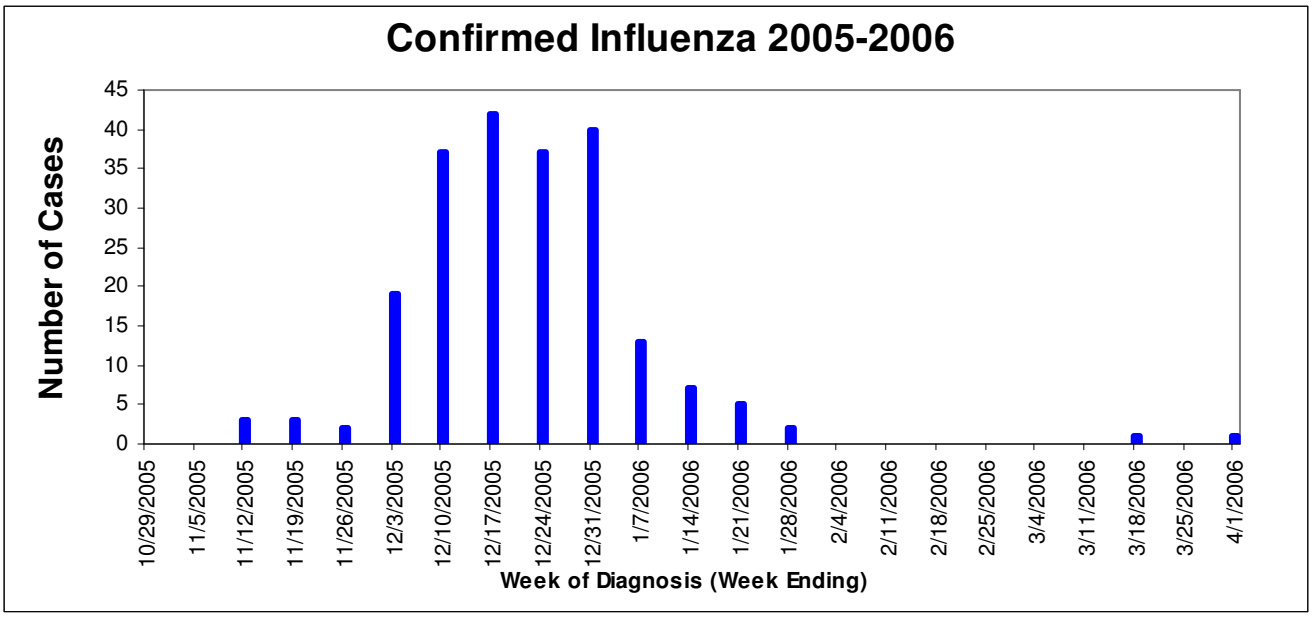

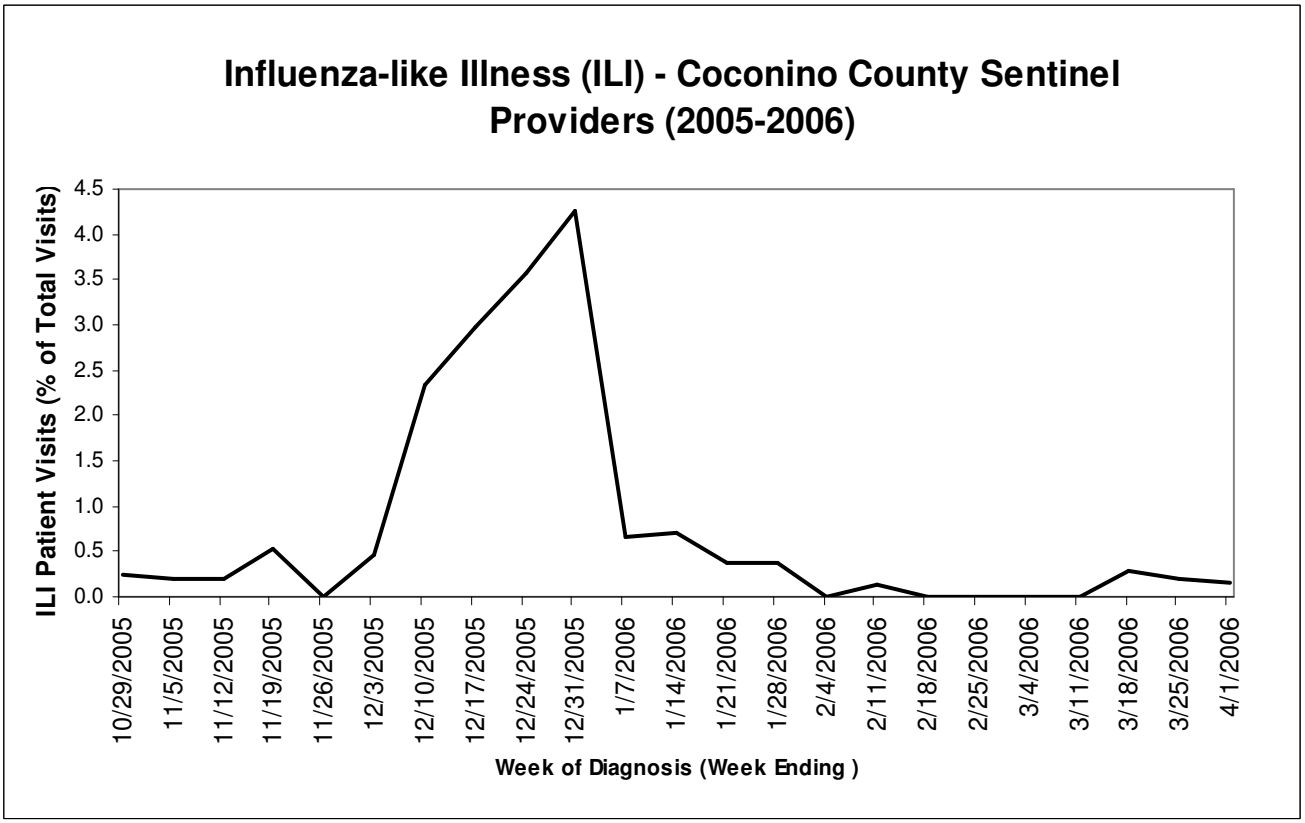

Contact Information: **Michael Callahan**, Epidemiologist, (928) 522-7842
Linus Nienstadt, Communicable Disease Program Coordinator, (928) 522-7892